



NUCLEAR REGULATORY COMMISSION

[Docket No. 70-1151; NRC-2021-0158]

Westinghouse Electric Company, LLC; Columbia Fuel Fabrication Facility; and US Ecology, Inc.; Idaho Resource Conservation and Recovery Act Subtitle C Hazardous Disposal Facility Located Near Grand View, Idaho

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) related to a request for alternate disposal, exemptions, and associated license amendment for the disposition of waste containing byproduct material and special nuclear material (SNM) from the Westinghouse Electric Company, LLC's (WEC) Columbia Fuel Fabrication Facility (CFFF) in Hopkins, South Carolina, under License Number SNM-1107. The material would be transported to and disposed of at the US Ecology, Inc. (USEI) disposal facility located near Grand View, Idaho, which is a Subtitle C Resource Conservation and Recovery Act (RCRA) hazardous waste disposal facility permitted by the State of Idaho to receive low-level radioactive waste. The NRC is also considering the related action of approving corresponding exemptions to USEI. Approval of the alternate disposal request from WEC, the exemptions requested by WEC and USEI, and a conforming license amendment to WEC would allow WEC to transfer specific waste from CFFF for disposal at USEI.

DATES: The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID **NRC-2021-0158** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2021-0158**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **Attention:** The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via email at pdr.resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: David Tiktinsky, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-8740, email: David.Tiktinsky@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

By letter dated June 1, 2021, as supplemented on September 14, 2021, WEC requested exemptions and an associated license amendment to License SNM-1107, issued for the operation of the CFFF located in Hopkins, South Carolina pursuant to section 20.2002 of title 10 of the *Code of Federal Regulations* (10 CFR). By letter dated September 14, 2021, USEI incorporated the supplemented WEC application in its request for corresponding exemptions. The requests are for NRC authorization for an

alternate disposal of NRC-licensed byproduct and SNM from the CFFF. As required by 10 CFR 51.21, the NRC conducted an EA. Based on the results of the EA that follows, the NRC has determined that pursuant to 10 CFR 51.31, preparation of an environmental impact statement for the exemption request is not required and pursuant to 10 CFR 51.32, issuance of a FONSI is appropriate.

WEC submitted a 10 CFR 20.2002 Alternate Disposal Request (ADR) on May 8, 2020 with a corresponding exemption request from USEI on May 11, 2020. NRC staff reviewed and approved the request on December 9, 2020, along with the corresponding exemptions for USEI. Following approval, WEC determined that the volume of material considered was incorrect. To resolve the issue WEC submitted a second request, dated February 8, 2021. NRC staff performed a review of the second request and issued an updated safety evaluation report (SER) evaluating both requests on March 11, 2021. On June 1, 2021, WEC submitted another ADR for the disposal of additional material from CFFF. On September 14, 2021, in a response to an NRC staff request for additional information (RAI), WEC supplemented and narrowed its June 1, 2021 request for the disposal of calcium fluoride (CaF_2) sludge containing byproduct material and SNM. WEC stated that the other waste material types discussed in the June 1, 2021 request will be addressed in the response to the NRC staff's RAI at a later time and are not considered here.

This ADR considers the remainder of the CaF_2 sludge pile from which the CaF_2 sludge evaluated in the amended request approved on March 11, 2021 originated. The previous review only approved a portion of the CaF_2 sludge pile for disposal. The staff's review of the request is documented in its SER.

II. Environmental Assessment

Description of the Proposed Action

WEC and USEI requested NRC approval for a 10 CFR 20.2002 alternate disposal request, exemptions to 10 CFR part 70.3 and 10 CFR 30.3, and a conforming WEC license amendment to allow WEC to transfer 133,000 ft³ of CaF_2 sludge containing

byproduct material and SNM from CFFF for disposal at the USEI disposal facility. The CaF_2 to be disposed of is generated from CFFF site operations and previously stored in onsite lagoons. The lagoons are periodically dredged and the resulting CaF_2 sludge is placed in piles on the site for drying prior to disposal. The CaF_2 sludge considered under this request is contaminated with SNM (low enriched uranium {<5wt% U-235}).

As proposed, this waste would be transported from CFFF in South Carolina to the USEI facility near Grand View, Idaho. The USEI facility is a RCRA Subtitle C hazardous waste disposal facility permitted by the State of Idaho. The USEI site has both natural and engineered features that limit the transport of radioactive material. The natural features include a low precipitation rate [i.e., 18.4 cm/year (7.4 in./year)] and a long vertical distance to groundwater (i.e., 61-meter (203-ft) thick on average unsaturated zone below the disposal zone). The engineered features include an engineered cover, liners, and leachate monitoring systems. Because the USEI facility is not licensed by the NRC, this proposed action requires the NRC to exempt USEI from the Atomic Energy Act of 1954, and NRC licensing requirements with respect to USEI's requested receipt and disposal of this material.

Need for the Proposed Action

The need for the proposed action is to authorize a safe and appropriate method of disposal for the CaF_2 sludge generated during day-to-day activities and currently being stored at the CFFF. The proposed action would also conserve low-level radioactive waste disposal capacity at licensed low-level radioactive disposal sites while ensuring that the material being considered is disposed of safely in a regulated facility.

Environmental Impacts of the Proposed Action

The NRC staff reviewed the information provided by WEC to support their 10 CFR 20.2002 alternate disposal request and for USEI's specific exemptions from 10 CFR 30.3 and 10 CFR 70.3 in order to dispose of the CaF_2 waste. Under the 10 CFR 20.2002 criteria, a licensee may seek NRC authorization to dispose of licensed material using procedures not otherwise authorized by NRC regulations. The licensee's

supporting analysis must show that the radiological doses arising from the proposed 10 CFR 20.2002 disposal will be as low as reasonably achievable and within the 10 CFR part 20 dose limits.

As documented in the SER, the NRC staff concluded that the requested alternate disposal of 133,000 ft³ of CaF₂ sludge is acceptable under 10 CFR 20.2002. Details provided in this request, in combination with past reviews considering similar material from the same site, provide an adequate description of the waste and the proposed manner and conditions of waste disposal. As documented in the SER and consistent with the NRC staff's review of WEC's February 8, 2021 request, a dose assessment concluded that potential doses to members of the public, including transportation workers and USEI workers involved in processing and disposing of the waste upon its arrival at USEI, are less than 1 mrem/y, well within the "few mrem" criteria that the NRC established (see NUREG-1757, Volume 1, Revision 2). NRC staff also notes that the request is also subject to regulation under RCRA.

NRC staff also considered non-radiological impacts associated with the proposed action. NRC staff concludes that approval of the proposed request would not have significant environmental impacts on non-radiological effluents, air quality, or noise. In addition, approval of the proposed action will not significantly increase the probability or consequences of accidents associated with the transport and disposal of the CaF₂ sludge.

Therefore, due to the very small amounts of radioactive material involved, the evaluation previously noted, and the NRC staff's analysis in the SER, the NRC staff finds that the environmental impacts of the proposed action are not significant.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered the no-action alternative in which the NRC staff would deny the disposal request. Denial of the request would require WEC to find another disposal pathway for this material and would ultimately only change the location of the disposal site. All other factors would remain

the same or similar. Therefore, the no-action alternative was not further considered.

Agencies and Persons Consulted

In accordance with its stated policy, on September 29, 2021, the staff consulted with the South Carolina Department of Health and Environmental Control and the Idaho Department of Environmental Quality regarding the environmental impacts of the proposed action. The State officials concurred with the EA and FONSI.

III. Finding of No Significant Impact

The proposed action consists of NRC approval of (a) WEC's and USEI's alternate disposal requests under 10 CFR 20.2002, (b) WEC and USEI's exemption request under 10 CFR 30.11(a) and 10 CFR 70.17(a), the issuance of a conforming license amendment to WEC. Based on this EA, the NRC finds that there are no significant environmental impacts from the proposed action. Therefore, the NRC has determined, pursuant to 10 CFR 51.31, that preparation of an environmental impact statement is not required for the proposed action and a FONSI is appropriate.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
Request for Alternate Disposal Approval and Exemption for Specific Columbia Fuel Fabrication Facility Waste (License No. SNM-1197, Docket No. 70-1151), dated May 8, 2020	ML20129J934 (Package)
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility under 10 CFR 20.2002, dated February 25, 2021	ML21061A273
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility Under 10 CFR 20.2002, dated May 11, 2020	ML20280A601
US Ecology Exemption for Alternate Disposal of Specific Waste from the Westinghouse Columbia Fuel Fabrication Facility under 10 CFR 20.2002, 10 CFR 30.11 and 10 CFR 70.17, dated December 9, 2020	ML20304A341

Westinghouse Electric Company, LLC – Amendment 25 to Material License SNM-1107, Exemption for Alternate Disposal of Specific Waste (Enterprise Project Identifier L-2020-LII-0009), dated December 9, 2020	ML20302A083 (Package)
Request for Alternate Disposal Approval and Exemption for Specific Columbia Fuel Fabrication Waste (Docket No. 70-1151, Material License SNM-1107), dated February 8, 2021	ML21039A719
Westinghouse Electric Company, LLC – Amendment 26 to Material License SNM-1107, Exemption for Alternate Disposal of Specific Waste (Enterprise Project Identifier L-2021-LLA-0013), dated March 11, 2021	ML21064A225
U.S. Ecology Exemption for Alternate Disposal of Specific Waste from the Westinghouse Columbia Fuel Fabrication Facility under 10 CFR 20.2002, 10 CFR 30.11 and 10 CFR 70.17, dated March 11, 2021	ML21061A277 (Package)
Request for Exemptions Associated with Disposal and Transportation of Specified Columbia Fuel Fabrication Waste (Docket No. 70-1151, Special Nuclear Material License SNM-1107), dated June 1, 2021	ML21153A001
Safety Evaluation Report for Request or Alternate Disposal Approval and Exemptions from Disposal of Columbia Fuel Fabrication Facility Waste to the US Ecology Idaho Facility, dated October 4, 2021	ML21202A110 (Package)
Request for Alternate Disposal Request, Revised Scope Review and Approval (Docket No. 70-1151), dated September 14, 2021	ML21257A439
Request for Exemptions under 10 CFR 30.11 and 10 CFR 70.17 for Alternate Disposal of Wastes from Columbia Fuel Fabrication Facility under 10 CFR 20.2002, dated September 14, 2021	ML21258A221
Letter from the Idaho Department of Environmental Quality entitled “Review of the Draft Environmental Assessment related to an alternative disposal request from Westinghouse Columbia Fuel Fabrication Facility (CFFF) for disposal of CaF ₂ Sludge,” dated October 4, 2021	ML21278A525

Email from Ken Taylor of the South Carolina Department of Health and Environmental Control entitled "Review of Draft Environmental Assessment for Westinghouse Columbia alternative disposal request," dated September 30, 2021	ML21278A524
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Dated: October 6, 2021.

For the Nuclear Regulatory Commission.

Jacob I. Zimmerman,
Chief, Fuel Facility Licensing Branch,
Division of Fuel Management,
Office of Nuclear Material Safety and Safeguards.

[FR Doc. 2021-22154 Filed: 10/8/2021 8:45 am; Publication Date: 10/12/2021]